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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/605,843	10/30/2003	Akira Masaoka	SIMTEK6701	2842

25776 7590 09/22/2005

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EXAMINER

GIMIE, MAHMOUD

ART UNIT	PAPER NUMBER
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3747

DATE MAILED: 09/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No. 10/605,843	Applicant(s) MASAOKA ET AL.	
	Examiner Mahmoud Gimie	Art Unit 3747	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 August 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Mingo et al (6,435,158).

Mingo et al discloses a method of preventing reverse rotation in a spark ignited internal combustion engine having at least one spark plug fired by an ignition circuit (col. 2, ll. 1) and having an electrical generator driven by the engine (inherent) and a starting device (150) for cranking the engine for starting thereof, said method comprising the steps of permitting firing of the spark plug after the starting device is initially operated, determining after the starting has been speed of the engine has initiated if the decreased sufficiently that the engine may be starting to rotate in a direction opposite to that desired, and thereafter preventing firing of the spark plug; see col. 5, ll. 64+ with reference to figure 8.

With regard to claim 2, once the firing of the spark plug has been prevented the spark plug is not permitted to fire again until another starting operation is initiated; see col. 6, ll. 7-9.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 3-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mingo et al (6,435,158) in view of Ozawa (5,020,506).

Mingo et al discloses all the limitations as applied to claims 1 and 2 above, except for the speed of the engine detected by the output of an electrical generator driven by an engine and the reverse running system comprising a pulser coil for operating a pulse in response to the passage of a timing mark associated with a shaft driven by the engine. Ozawa discloses an engine igniter with a reverse rotation prevention system including a pulser coil (1) associated with an electrical generator (not shown).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Mingo et al by using a pulser coil for operating a pulse in response to the passage of a timing mark associated with a shaft driven by the engine as either clearly shown or necessarily present in the invention of Ozawa. The motivation to do so would have been to provide apply the invention of Mingo et al to a conventional ignition control as disclosed by Ozawa.

With regard to claims 4-17, see above and figures 1-6 of Ozawa for details.

Response to Arguments

5. Applicant's arguments filed 8/2/05 have been fully considered but they are not persuasive.

Applicants argue that the reference relied upon has been mischaracterized as teaching prevention of reverse rotation. This argument is not persuasive because Mingo et al ("Mingo") teaches, inter alia, a flow diagram of "a preferred method for preventing an engine reverse run condition", column 5 and lines 26-27.

Applicants argue that the examiner allegation of "firing of the spark plug is permitted on the occurrence of another starting operation" is not accurate, because Mingo teaches that the firing is disabled for a predetermined time. This argument is not persuasive because claim 2 does not require firing being permitted on the occurrence of another starting operation, it rather requires the spark plug is not permitted to fire again until another starting operation is initiated, which is met by the reference.

With regard to the current amendment (determining after the starting has been initiated if the speed of the engine has decreased from a previously sensed speed sufficiently that the engine may be starting to rotate in a direction opposite to the desired) does not distinguish it from the prior art because the new amendment does not mention comparing the two speeds. It simply requires "if the current speed is lower than a previously sensed speed" without specifying how that conclusion is reached. Applicants' argument concerning "comparing" the two speeds is not in the claim.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mahmoud Gimie whose telephone number is 571-272-

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4841. The examiner can normally be reached on Tuesday-Friday between 7 a.m. -3:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Henry Yuen can be reached on 571-272-4856. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MG

 9/19/05
MAHMOUD GIMIE
PRIMARY EXAMINER